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D251/D303

16.4100

AUTHOR: Trofimov, V.M.

TITLE: On the order of approximation with trigonometric polynomials on certain classes of functions of two variables

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 10, 1960, 1319 - 1322

TEXT: In this article the author considers the problem of estimating the upper limit of the best approximation in trigonometric polynomials on a class of functions

$$\Lambda^r H_p^{\omega_1,\omega_2} (1 \leq p \leq \infty)$$

defined as follows: $\omega_1(t)$ and $\omega_2(t)$ are arbitrary moduli of continuity, $f(x, y)$ are functions of two real variables with period 2 for each variable. $\varphi(x, y)$ is defined by

$$\varphi(x, y) = \Delta^r(f) = \Delta^{r-1}(\Delta f),$$

Card 1/6

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On the order of approximation ...

where $\Delta = \frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2}$.

$\Lambda^r H_p^{\omega_1,\omega_2}$ $(1 \leq p \leq \infty)$ is the class of functions f(x, y) satisfying

$$||\varphi(x+t_1, y+t_2) - \varphi(x, y)||_{L_p} = \left(\int_0^{2\pi}\int_0^{2\pi} |\varphi(x+t_1, y+t_2) - \varphi(x, y)|^p dx dy\right)^{\frac{1}{p}} \leq \omega_1(|t_1|) + \omega_2(|t_2|).$$

It is assumed that $\omega_1(t)$ and $\omega_2(t)$ are non-negative functions of a non-negative variable, and are monotonic and semiadditive. $E_{m,n}(f)$ is taken to be the best approximation to f(x, y) in trigonometric polynomials of degree m in x and n in y. Theorem 1: For all integers m,n >1, r = 0, 1, 2, ...

Card 2/6

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

On the order of approximation ...

$$C_1(r)\left[\frac{\omega_1\left(\frac{1}{m}\right)}{m^{2r}}+\frac{\omega_2\left(\frac{1}{n}\right)}{n^{2r}}\right]\leqslant \sup_{f\in\Lambda^r H^{\omega_1,\omega_2}_{\infty}} E_{m\,n}(f)\leqslant C_2(r)\left[\frac{\omega_1\left(\frac{1}{m}\right)}{m^{2r}}+\frac{\omega_2\left(\frac{1}{n}\right)}{n^{2r}}\right] \qquad (2)$$

where $C_1(r)$, $C_2(r)$ depend only on r. $W^k H^\omega$ is defined as denoting class of periodic functions $\psi(x)$ having k derivatives, and for which the derivative $\psi^{(k)}(x)$ has a modulus of continuity which does not exceed $\omega(t)$. Then

$$2\sup_{f\in\Lambda^r H^{\omega_1,\omega_2}_{\infty}} E_{m,n}(f) > \sup_{f_1\in W^{2r}H^{\omega_1}} E_m(f_1)+\sup_{f_2\in W^{2r}H^{\omega_2}} E_n(f_2).$$

Following the monograph of O.F. Timan (Teoriya priblizheniya funktsiy dystvitel'nogo peremennogo (Theory of Approximate Functions of a Real Variable)) the author points out that the function

Card 3/6

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S/021/60/000/010/001/016
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On the order of approximation ...

$$\Phi_{n+1}(x) = \frac{1}{(n+1)^{2r}} \sum_{\nu=0}^{\infty} \frac{b_{2\nu+1}^{(n+1)}(\omega)}{(2\nu+1)^{2r}} \sin(2\nu+1)(n+1)x,$$

where

$$b_{2\nu+1}^{(n)} = \frac{2}{\pi} \int_0^{\frac{\pi}{2}} \omega\left(\frac{t}{n}\right) \sin(2\nu+1)t\,dt$$

depends on the class $W^{2r}H^{\omega}$ and for it

$$E_n(\Phi_{n+1}) \geqslant C(r) \frac{\omega\left(\frac{1}{n}\right)}{n^{2r}}$$

[Abstractor's note: Timan's monograph is mentioned in a footnote; no further details are given]. If

$$E_{m,n}(f)_{L_p} = \inf_{T_{m,n}} \| f - T_{m,n} \|_{L_p},$$

Card 4/6

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On the order of approximation ...

then, using Minkowski's inequality, one obtains: Theorem 1'. For arbitrary $p(1 \leqslant p < \infty)$, and integers $m,n > 1$, $r = 1, 2, \ldots$

$$\sup_{f \in \Lambda^r H_p^{\omega_1,\omega_2}} E_{mn}(f)_{L_p} < C(r)\left[\frac{\omega_1\left(\frac{1}{m}\right)}{m^{2r}} + \frac{\omega_2\left(\frac{1}{n}\right)}{n^{2r}}\right], \qquad (2')$$

where $C(r)$ depends only on r. [Abstractor's note: Minkowski's inequality not stated]. Inequalities similar to (2) and (2') may also be demonstrated if instead of a polyharmonic operator, some other operator, e.g.

$$\frac{\partial^r}{\partial x^r} + \frac{\partial^r}{\partial y^r}$$

is considered. If $\omega_1(t) = t^\alpha$, $\omega_2(t) = t^\beta$, then the class $\Lambda^r H^{\omega_1,\omega_2}$ is denoted by $\Lambda^r H^{\alpha,\beta}$. Result 1. If $f \in \Lambda^r H^{\alpha,\beta}$ $(0 < \alpha, \beta < 1)$, then the derivative $\partial^{2r} f / \partial x^{2r}$ as a function of the variable x satisfies

Card 5/6

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On the order of approximation ...

the Helder condition of degree α with a constant which does not depend on y, and $\partial^{2r}f/\partial y^{2r}$ as a function of the variable y satisfies the Helder condition of degree β with a constant which does not depend on x. [Abstractor's note: Condition not stated]. Result 2: If $f \in \bigwedge^{r}H\beta,\alpha$ $(0 \leq \alpha \leq 1)$ then every partial derivative $\frac{\partial^{k+\ell} f}{\partial x^{k} \partial y^{\ell}}$ $(k + \ell \leq 2r)$ of f satisfies with respect to each variable the Helder condition of degree α with a constant which is independent of both variables. There is 1 Soviet-bloc reference.

ASSOCIATION: Dnipropetrovs'kyy derzhavnyy universytet (State University of Dnipropetrovs'k)

PRESENTED: by B.V. Hnyedenko, Academician AS UkrSSR

SUBMITTED: September 5, 1959

Card 6/6

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

ACC NR: AP6029928 (A) SOURCE CODE: UR/0413/66/000/015/0090/0090

INVENTORS: Karlin, A. V.; Mitrofanov, L. A.; Trofimov, V. M.

ORG: none

TITLE: Method for obtaining low-molecular weight α,ω,-dihydroxypolysiloxanes. Class 39, No. 184453

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 90

TOPIC TAGS: siloxane, water, polymerization, basic catalysis, catalysis

ABSTRACT: This Author Certificate presents a method for obtaining low-molecular weight α,ω,-dihydroxypolysiloxanes from cyclosiloxanes, e.g., octamethylcyclotetrasiloxane or dimethyl phenylcyclosiloxane at high temperatures and pressures. To simplify the process, the cyclosiloxane is reacted directly with water in the presence of catalytic amounts of alkali.

SUB CODE: 07/ SUBM DATE: 18Jun65

UDC: 678.84

Card 1/1

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.M., inzh.

Semiautomatic stand for checking the length of measuring wire.
Mekh. i avtom. proizv. 18 no.10:34 O '64. (MIRA 17:12)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

AUTHOR: Vyazdrikov, [illegible]

ions in solid dielectrics

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 7, 1965, 1319-1320

TOPIC TAGS: [illegible]

[illegible]

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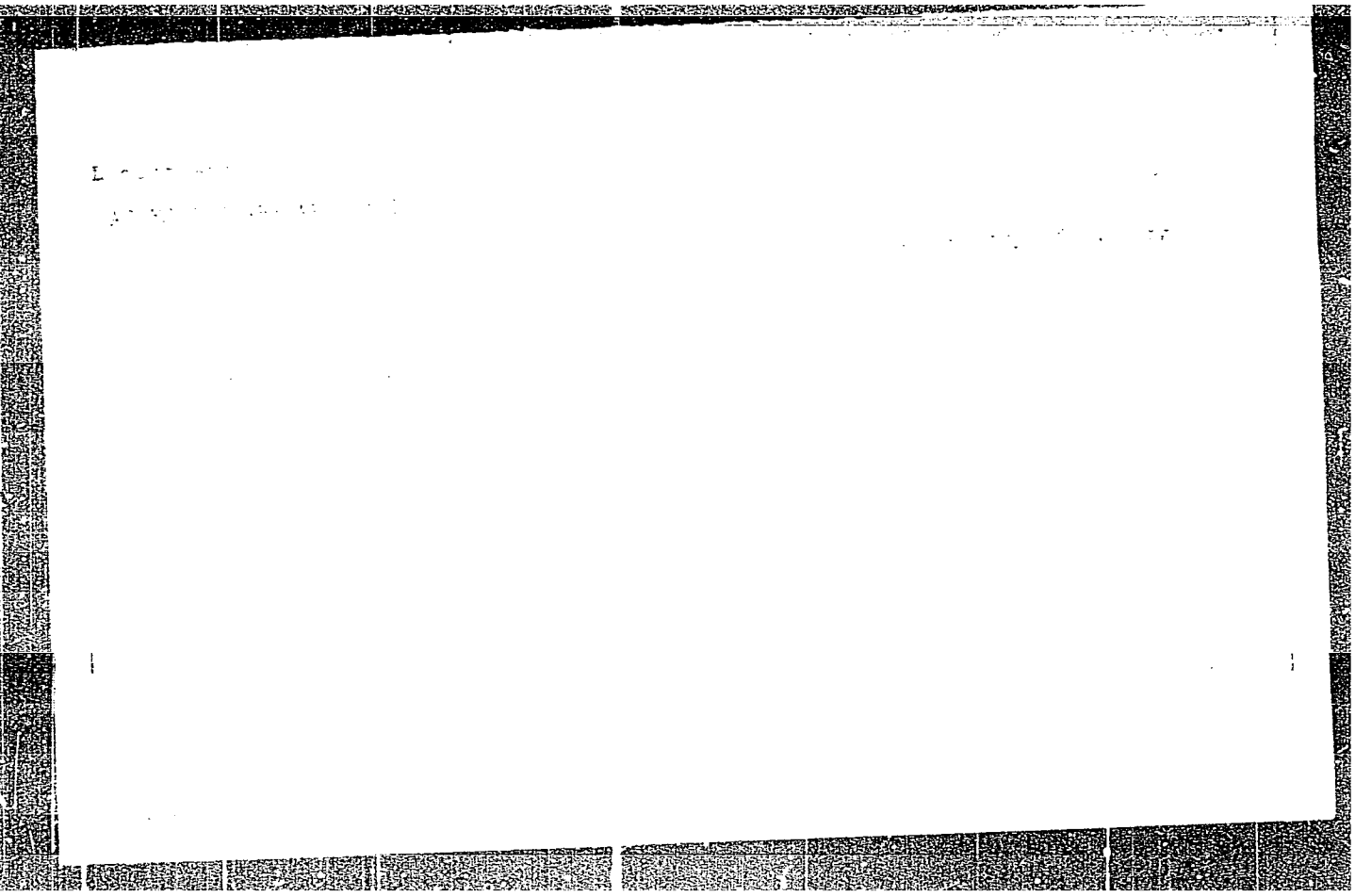

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

PIGULEVSKIY, V.V.; IOANESOVA, A.L.; MAKHOVA, E.A.; TROFIMOV, V.M.

Reduction of vanadium ions. Zhur. prikl. khim. 37 no.9: 1898-1902 S '64. (MIRA 17:10)

1. Leningradskiy institut kinoinzhenerov.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V. M.

Stresses developing under the cutters of bits in drilling. Izv. vys. uch. zav.; geol. i razv. 5 no.7:120-124 Jl '62. (MIRA 15:10)

1. Moskovskiy institut stali.

(Boring)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

DOLZHENKOV, Andrey Timofeyevich, dotsent, kand.tekhn.nauk; ANDREYEV, Nikolay Nikolayevich, dotsent; DOKUCHAYEVA, Avgusta Paramonovna, dotsent; KOZLOV, Ivan Pavlovich, starshiy prepodavatel'; KISELEV, Ivan Ivanovich, dotsent; PARAMZIN, Ivan Ivanovich, dotsent; TROFIMOV, Vladimir Ivanovich, dotsent; BEREZOVSKAYA, A.L., red.; KRYUKOV, V.L., red.; RAKOV, S.I., tekhn.red.

[Reference manual for young agricultural machinery operators] Spravochnik molodogo mekhanizatora sel'skogo khoziaistva. Moskva, Vses. uchebno-pedagog.izd-vo Trudrezervizdat, 1959. 694 p. (MIRA 12:12)

1. Prepodavateli Moskovskogo instituta mekhanizatsii i elektrifikatsii sel'skogo khozyaystva (for Dolzhenkov, Andreyev, Dokuchayeva, Kozlov, Kiselev, Paramzin, Trofimov).

(Agricultural machinery--Maintenance and repair)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V. K., Chief of the MCA of the City of Moscow
Your Hand Is Your Master

The chief of the MCA (Military Construction Administration) reported to the editors of Krasnaya Zvezda that the facts contained in the article bearing the above title (Krasnaya Zvezda, Moscow, 13 Jun 54) were true. He stated that disciplinary measures have been taken against V. V. BENESHEVICH* and A. T. KIYASHKO*, both deputy chiefs of the MCA of the city of Moscow, and against Ye. I. SIMONOV*, chief of KECH of the MCA, and KAPRALOV*, deputy chief of the Financial Accounting Section (schetno-finansovyy otdel) of the MCA. KOLIBERNOV, SUKHIN, KAPRALOV, and S. P. ZAYTSEV*, chairman of the Building Committee (postroykom), all of whom illegally received second apartments, have been ordered to give them up. V. K. TROFIMOV*, chief of the Military Construction Administration of the city of Moscow, had pointed out to him the poor control on his part of the work of the Billeting and Maintenance Service (kvartirno-ekspluatatsionnaya sluzhba) and the improper distribution of living space which he personally has permitted. The Military Construction Administration has been ordered to organize, in the near future and with the participation of social organizations, a thorough investigation of the state of living conditions of officers, engineering and technical personnel, workers, and laborers, and to bring order into the accounting for, and distribution of, living space. Measures were taken to insure living space for these employees of the MCA. (Krasnaya Zvezda, Moscow, 27 Jul 54)

SO: SUM No. 239, 13 Oct 1954

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

GUSAREV, V.F. (Dnepropetrovsk, ul. Dzerzhinskogo, d.10, kv.3.); TROFIMOV, V.L.

Treatment of intestinal obstruction in atresia of newborn infants. Vest.khir. 80 no.1:124-126 Ja '58. (MIRA 11:4)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. T.Ye. Gniloryhov) lechebnogo fakul'teta i fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. M.F.Kamayev) pediatricheskogo i sanitarno-gigiyenicheskogo fakul'tetov Dnepropetrovskogo meditsinskogo instituta.

(INTESTINES, abnorm.
atresia in newborn causing intestinal obstruct., surg. (Rus))
(INTESTINAL OBSTRUCTION, etiol. & pathogen.
atresia of intestine in newborn, surg. (Rus))
(INFANT, NEWBORN, dis.
intestinal obstruct. in atresia, surg. (Rus))

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V. N.

Cand Phys-Math Sci, Diss -- "Linear methods of approximation for certain classes of periodic functions with two variables". Leningrad, 1961. 6 pp, 20 cm (Leningrad Order of Lenin State U imeni A. A. Zhdanov), 180 copies, Not for sale (KL, No 9, 1961, p 176, No 24267). /61-52353/

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.N.

Approximation of functions of some classes determined by a polyharmonic operator, by truncated arithmetic means of partial sums of Fourier series. Usp.mat.nauk 15 no.5:191-198 S-O '60. (MIRA 13:10)

(Fourier's series)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.N. [Trofimov, V.M.]

On the order of approximation with trigonometric polynomials on some classes of functions of two variables. Dop.AN URSR no.10:1319-1322 '60. (MIRA13:11)

1. Dneprodetrovskiy gosudarstvennyy universitet. Predstvaleno akademikom AN USSR B.V.Gnedenko [Hnedenko, B.V.]
(Functions of several variables)

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16.3500 16.3800

AUTHOR: Trofimov, V.N.

TITLE: Approximation of Functions of Certain Classes Determined by Polyharmonic Operators, by Truncated Arithmetic Means of Fourier Series Partial Sums

PERIODICAL: Uspekhi matematicheskikh nauk, 1960, Vol.15, No.5, pp.191-198

TEXT: Let $\Delta^r H^{\alpha,\beta}$ be the class of functions $f(x,y)$ having the period 2π in x and y and having the property that the function $\varphi(x,y) = \Delta^r f =$ $= \Delta(\Delta^{r-1} f)$, where $\Delta = \frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2}$, satisfies the relation

$$(1) \qquad |\varphi(x_1,y_1) - \varphi(x_2,y_2)| \leq |x_1-x_2|^{\alpha} + |y_1-y_2|^{\beta}$$

for arbitrary pairs (x_1,y_1), (x_2,y_2). Δ_p^r denotes the class of periodic functions $f(x,y)$ for which $\|\varphi\|_{L_p} = \left(\int_{-\pi}^{\pi} \int_{-\pi}^{\pi} |\varphi(x,y)|^p dxdy \right)^{1/p} \leq 1$. Let

Card 1/4

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Approximation of Functions of Certain Classes Determined by Polyharmonic Operators, by Truncated Arithmetic Means of Fourier Series Partial Sums

$$\mathcal{E}_{\sigma_{m,n}^{(p,q)}}(\mathcal{L}^r H^{\alpha,\beta};x,y) = \sup_{f\in \mathcal{L}^r H^{\alpha,\beta}} \left| f(x,y) - \sigma_{m,n}^{(p,q)}(x,y) \right| ,$$

where

$$\sigma_{m,n}^{(p,q)}(x,y) = \frac{1}{(p+1)(q+1)} \sum_{m-p}^{m} \sum_{n-q}^{n} S_{k,l}(x,y)$$

and

$$(3) \qquad S_{k,l}(x,y) = \frac{a_{0,0}}{4} + \frac{(-1)^r}{\pi^2} \int_D f(x+u,y+v) \sum_{0}^{k} \sum_{0}^{l}{}' (\theta_{ij} \rho_{ij} \cos iu \cos jv)\, du\, dv$$

is a partial sum of the Fourier series of $f(x,y)$. Here $D = [-\pi \leq x,y \leq \pi]$, the prime means that the term with $i=j=0$ is omitted. (3) is a partial sum of the development given by Ya.S.Bugrov (Ref.2).
Theorem 1: If $p = o(m)$, $q = O(n)$, then for arbitrary numbers r, α, β it holds:

Card 2/4

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S/042/60/015/005/016/016XX
C111/C222

Approximation of Functions of Certain Classes Determined by Polyharmonic Operators, by Truncated Arithmetic Means of Fourier Series Partial Sums

$$(4)\quad \mathcal{E}_{\mathfrak{S}(p,q)}(\Delta^r H^{\alpha,\beta};x,y) = \frac{8\ln\frac{m}{p+1}\ln\frac{n}{q+1}}{\pi^4(m^2+n^2)^r}\int_0^{\frac{\pi}{2}}\int_0^{\frac{\pi}{2}}\min\left\{\left(\frac{2u}{m}\right)^{\alpha},\left(\frac{2v}{n}\right)^{\beta}\right\}\sin u\sin v\,du\,dv+O\left[\left(\ln\frac{m}{p+1}+\ln\frac{n}{q+1}\right)\left(\frac{1}{m^{2r+\alpha}}+\frac{1}{n^{2r+\beta}}\right)\right],$$

where $O(1)$ is uniformly bounded with respect to all $p\leq\theta m$, $q\leq\theta n$ $(0<\theta<1)$.

Theorem 2: If $p=o(m)$, $q=o(n)$, then for every $r=1,2,\ldots$ it holds

$$(14)\quad \left.\begin{matrix}\mathcal{E}_{\mathfrak{S}(p,q)}(\Delta_{\infty}^r)\\ \mathcal{E}_{\mathfrak{S}(p,q)}(\Delta_1^r)\end{matrix}\right\} = \frac{16\ln\frac{m}{p+1}\ln\frac{n}{q+1}}{\pi^4(m^2+n^2)^r}+O\left(\frac{\ln\frac{m}{p+1}}{m^{2r}}+\frac{\ln\frac{n}{q+1}}{n^{2r}}\right),$$

where $O(1)$ is uniformly bounded with respect to all $p\leq\theta m$, $q\leq\theta n$ $(0<\theta<1)$.

Card 3/4

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Approximation of Functions of Certain Classes Determined by Polyharmonic Operators, by Truncated Arithmetic Means of Fourier Series Partial Sums

Here it is

$$\mathcal{E}_{\sigma_{m,n}^{(p,q)}}(\mathfrak{A}_1^r) = \sup_{f \in \mathfrak{A}_1^r} \int_D \left| f(x,y) - \sigma_{m,n}^{(p,q)}(x,y) \right| dx\, dy$$

$$\mathcal{E}_{\sigma_{m,n}^{(p,q)}}(\mathfrak{A}_\infty^r) = \sup_{f \in \mathfrak{A}_\infty^r} \left[\sup_{x,y} \left| f(x,y) - \sigma_{m,n}^{(p,q)}(x,y) \right| \right].$$

The author mentions A.F.Timan, V.G.Ponomarenko and S.M.Nikol'skiy; he thanks A.F.Timan for the theme. There are 8 Soviet references.

SUBMITTED: February 20, 1959

Card 4/4

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P., veterinarnyy vrach; YERMOCHENKOV, P.N., veterinarnyy vrach. (g.Velikiye Luki)

Hypodermatosis in sheep. Veterinariia 32 no.2:43 F '55. (MLRA 8:3)

1.Oblastnoye upravleniye sel'skogo khozyaystva.
(SHEEP--DISEASES) (WARBLE FLIES)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P., vet. vrach.

Role of disinfection in preventing ringworm in lambs. Veterinariia 35 no.6:54 Je '58. (MIRA 11:6)

1. Nelidovskaya vetbaklaboratoriya Kalininskoy oblasti.
(Ringworm)
(Lambs--Diseases and pests)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P.

Scientific and technical conference on problems of manless coal mining. Ugol' 34 no.2:63 F '59. (MIRA 12:4)
(Coal mines and mining--Research)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, Vladimir Petrovich; KRAVETS, V.I., kand.tekhn.nauk, otv.red.; TUBOLEVA, M.V., red.

[Principal trends in the expansion of coal mining in the Ukrainian S.S.R.] Glavneishie napravleniia razvitiia ugol'noi promyshlennosti Ukrainskoi SSR. Kiev, 1960. 31 p. (Obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii Ukrainskoi SSR. Ser.7, no.8). (MIRA 14:1)

(Ukraine--Coal mines and mining)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P., gornyy inzh.; REZNIKOV, V.T., gornyy inzh.

Mechanization of coal mining operations in United States mines.
Ugol' Ukr. no.6:40-41 Je '60. (MIRA 13:7)
(United States--Coal mines and mining)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P., gornyy inzh.

Experience acquired in the use of narrow-range mining ("Narrow-range coal mining" by A.D.Panov and others. Reviewed by V.P. Trofimov). Ugol' Ukr. 4 no.2:44 F '60. (MIRA 13:6)
(Mining engineering) (Panov, A.D.)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P.

Results of the discussion concerning the mine level interval in steeply pitching seams. Ugol' Ukr. 4 no.7:37-38 Jl '60. (MIRA 13:8)

(Coal mines and mining)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P., gornyy inzh.; VOVK, A.A., gornyy inzh.

Coal breaking by blasting with water infusion into bore holes. Ugol' Ukr. 4 no.10:44-45 O '60. (MIRA 13:10)
(Coal mines and mining) (Blasting)

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IZRAYELIT, B.Z., dotsent; VINNIK, I.V., inzh.; KARASIK, I.B., kand. tekhn.nauk; TROFIMOV, V.P., gornyy inzh.; VOVK, A.A., gornyy inzh.; SHAMRAY, G.A.

Response to I.E.Detistov's article "Evaluating the efficiency of explosives." Ugol' 35 no.3:58-61 Mr '60. (MIRA 13:6)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet USSR. (for Trofimov and Vovk).
(Coal mines and mining--Explosives)
(Detistov, I.E.)

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TROFIMOV, V.P., kand. tekhn. nauk; MATVEYEV, M.T., kand. tekhn. nauk

Objectives of the five-year plan in conducting scientific research in the coal industry of the Ukrainian SSR. Ugol' Ukr. 9 no.12:1-3 D '65. (MIRA 19:1)

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VAL'SHTEYN, G.I.; VOLKOV, A.S.; TROFIMOV, V.P.

Basic measures to control the swelling of ground rock in development workings. Nauch. trudy KNIUI no.14:321-325 '64. (MIRA 18:4)

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TROFIMOV, V.P.

Efficient methods of seam development in the Lvov-Volyn' Basin. Izv. DGI 42:112-120 '64. (MIRA 18:11)

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TROSHKOV, V.P., inzh.

Creating the means for manless coal mining. Ugol'.prom. no.3:11-14 Ja-Je '62. (MIRA 18:3)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

KHOMYAKIN, A.F.; VAL'SHTEYN, G.I.; TROFIMOV, V.P.

Using underground charges to combat ground heaving in a longwall at Mine No.13 of the "Abaugol'" Trust. Ugol' 39 no.12:32 D '64. (MIRA 18:2)

1. Sverdlovskiy gornyy institut (for Khomyakin). 2. Kemerovskiy nauchno-issledovatel'skiy ugol'nyy institut (for Val'shteyn, Trofimov).

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TROFIMOV, V.P.

Duck infestation with echinoparyphium and strigeids. Veterinariia 39 no.4:46 Ap '62. (MIRA 17:10)

1. Nelidovskaya mezhrayonnaya veterinarno-bakteriologicheskaya laboratoriya, Kalininskaya oblast'.

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TROFIMOV, V.P.; SPEKTOR, M.A.

The use of explosives in Swedish mines. Met. i gornorud. prom. no.5:93-94 S-O '63. (MIRA 16:11)

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TROFIMOV, Vladimir Petrovich; YEFREMOV, G.D., kand. tekhn. nauk, retsenzent; AFONINA, G.P.[Afonina, H.P.], red. izd-va; STARODUB, T.O., tekhn. red.; SHAFETA, S.M., tekhn. red.

[Ways of developing the coal industry of the Ukrainian S.S.R.] Shliakhi rozvytku vuhil'noi promyslovosti URSR. Kyiv, Derzh. vyd-vo tekhn. lit-ry URSR, 1963. 110 p. (MIRA 16:3)
(Ukraine--Coal mines and mining)

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L 17140-63 EPR/EPF(c)/EWT(l)/EPF(n)-2/EWP(q)/EWT(m)/BDS/ES(s)-2 AFFTC/
ASD/SSD Ps-4/Pr-4/Pu-4/Pt-4 WW/JD/JG
ACCESSION NR: AP3000441 S/0170/63/006/005/0029/0033

85
84

AUTHOR: Trofimov, V. P.; B. I. Timchuk

TITLE: Heat transfer in molten metals with phase transformations under natural convection

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 6, no. 5, 1963, 29-33

TOPIC TAGS: heat transfer, molten metal , natural convection, phase transformations, solidification melting

ABSTRACT: Using Timchuk's apparatus (Fig. 1 of Enclosure 1) and assumptions (Timchuk, B. I., Inzhenerno-fizicheskiy zhurnal, no. 11, 1959), heat transfer between molten tin and lead and a crystallized crust under natural convection were investigated. The crust was formed on the surface of water-cooled hollow steel cylinders immersed in a bath of the molten metal. In the course of the experiments, which were carried out under stationary heat transfer conditions, delta(t_{II}), the difference between the temperature of the molten metal and the crystallization point, varied between 60° and 40°C for lead and 40° and 25°C for tin. The results are generalized in equation (7) of Enclosure 2, which is valid for Gr between 1.7 x

Card 1/2

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ACCESSION NR: AP3000441

10^7 and 1.2×10^9 and for Pr between 1.5×10^{-2} and 3.2×10^{-2}, and hence can be used in solving many practical problems connected with the melting and hardening of metals. Orig. art. has: 2 figures and 8 formulas.

ASSOCIATION: Institut teplo- i massoobmena AN BSSR, Minsk (Institute of Heat and Mass Transfer of the AN BSSR)

SUBMITTED: 19Dec62 DATE ACQ: 10Jun63 ENCL: 02

SUB CODE: PH NO REF SOV: 006 OTHER: 005

Card 2/2

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PROYAVKIN, Ye.G., kand.tekhn.nauk; TROFIMOV, V.P., inzh.

Use of narrow-cut coal-mining combines in Czechoslovakia. Mekh.i avtom. proiz-vo 16 no.5:45-46 '62. (MIRA 16:5)

(Czechoslovakia--Coal mining machinery)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P.; TIMCHUK, B.I.

Heat transfer in molten metals during phase transformations under conditions of natural convection. Inzh.-fiz. zhur. 6 no.5:29-33 My '63. (MIRA 16:5)

1. Institut teploi massoobmena AN BSSR, Minsk.
(Heat--Transmission) (Liquid metal)

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SERGEYEV, V. L.; TROFIMOV, V. P.; YEREVICH, F. B.; YAS'KO, O. I.

Some results of studying the operation of an electric arc heater with gas stabilization of the discharge. Inzh.-fiz. zhur. 6 no.1:14-18 Ja '63. (MIRA 16:1)

(Electric arc)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P.

Symposium on the improvement of mining methods in Lvov-Volyn Basin Mines. Ugol' Ukr. 3 no.9:47-48 S '59. (MIRA 13:2)
(Lvov-Volyn Basin--Coal mines and mining)
(Automatic control)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P., inzh.

Reorganization and construction of mines in Great Britain and the U.S.A. Ugol.prom. no.5:78-81 S-O '62. (MIRA 15:11)
(United States--Coal mines and mining)
(Great Britain--Coal mines and mining)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P., inzh.; MATVEYEV, M.T., inzh.

Some problems of the expansion of the coal mining industry in the Ukrainian S.S.R. Ugol'.prom. no.1:3-7 Ja-F '62. (MIRA 15:8)

(Ukraine--Coal mines and mining)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P., gornyy inzh.; PROYAVKIN, Ye.T., kand.tekhn.nauk

Roof caving without the use of battery stulls in Ostrava-Karvina Basin mines and possibility of using this method in the Donets Basin mines. Ugol' Ukr. 6 no.1:42-44 Ja '62. (MIRA 15:2)
(Czechoslovakia--Mining engineering)
(Donets Basin--Coal mines and mining)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V. P. (Nelidov Interraion Veterinary Bacteriological Laboratory, Kalinin Oblast)

"Echinoparyphium and Strigeidae infestations of ducks"

Veterinariya, vol. 39, no. 4, April 1962 p. 46

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P., gornyy inzhener

Shortcomings of the reorganization planning of some Donets Basin mines. Ugol' Ukr. 5 no.11:14-15 N '61. (MIRA 14:11)
(Donets Basin--Coal mines and mining)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.P., gornyy inzh.; VOVK, A.A., gornyy inzh.; CHERNYY, G.I., gornyy inzh.

Dictionary of the Ukrainian mining terminology ("Russian-Ukrainian mining dictionary." Reviewed by V.P. Trofimov and others). Ugol' Ukr. 5 no.1:47 Ja '61. (MIRA 14:1)
(Mining engineering—Dictionaries)
(Russian language—Dictionaries—Ukrainian)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, Vladimir Petrovich; KONONOV, K.G., inzh., retsenzent

[Manless coal mining] Bezliudnaia vyemka uglia. Kiev, Gostekhizdat USSR, 1962. 254 p. (MIRA 17:6)

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PROCESSES AND PROPERTIES INDEX

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

8

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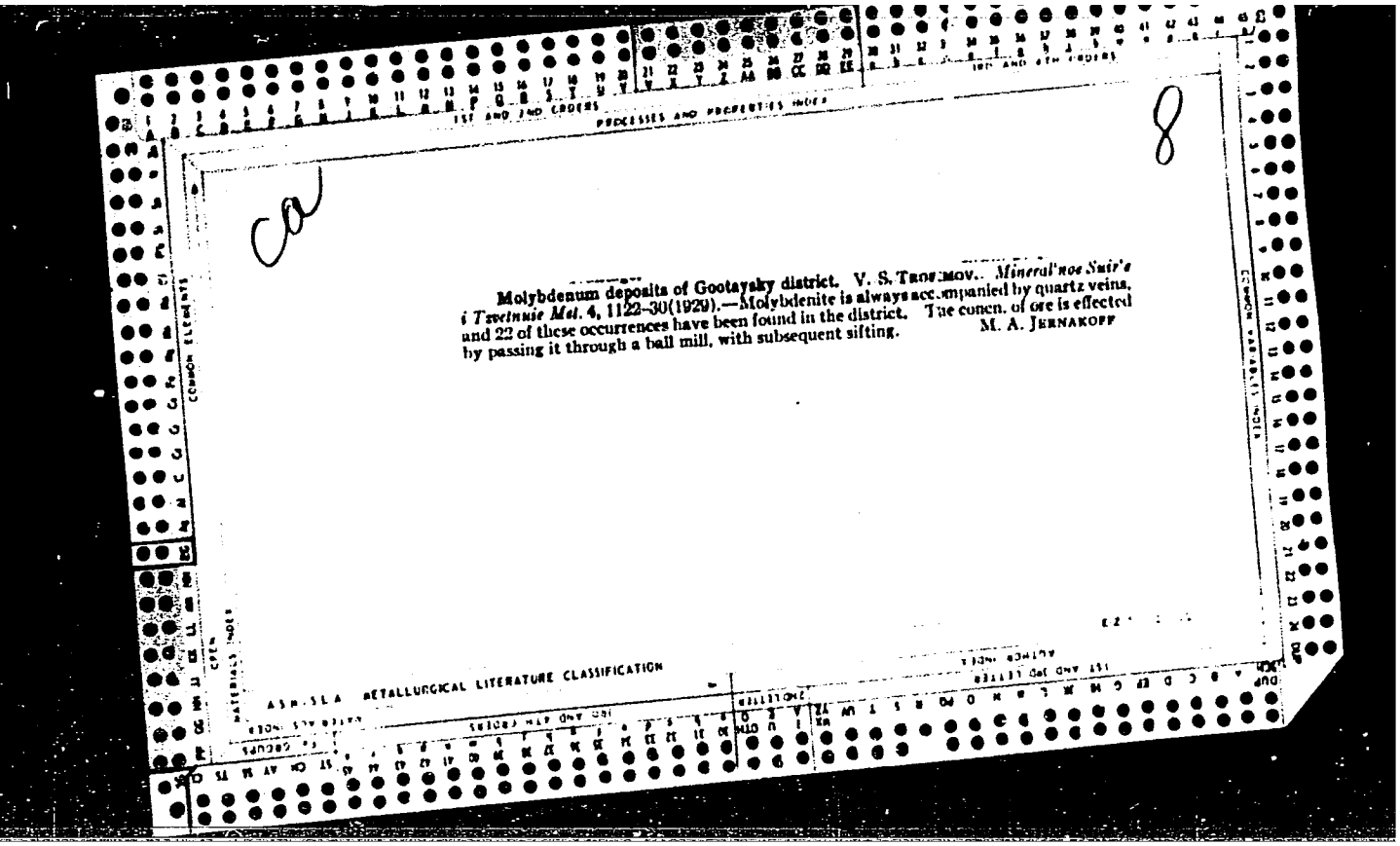

Molybdenum deposits of Gootayaky district. V. S. Trofimov. *Mineral'noe Suir'e i Tsvetnuie Met.* 4, 1122–30(1929).—Molybdenite is always accompanied by quartz veins, and 22 of these occurrences have been found in the district. The concn. of ore is effected by passing it through a ball mill, with subsequent sifting. M. A. Jernakoff

COMMON ELEMENTS

COMMON VARIABLES INDEX

OPEN

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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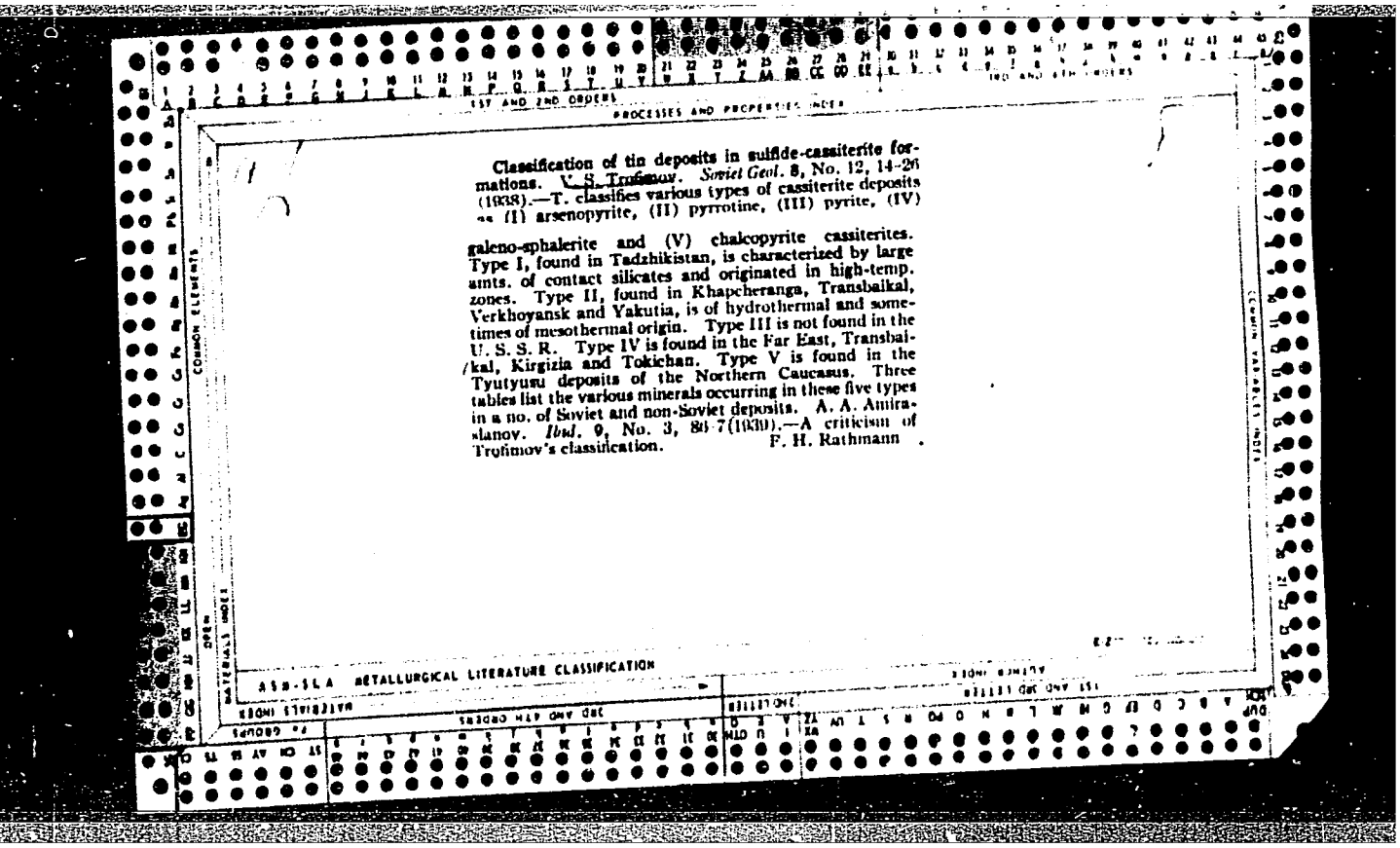

Classification of tin deposits in sulfide-cassiterite formations. V. S. Trofimov. *Soviet Geol.* 8, No. 12, 14–26 (1938).—T. classifies various types of cassiterite deposits as (I) arsenopyrite, (II) pyrrotine, (III) pyrite, (IV) galeno-sphalerite and (V) chalcopyrite cassiterites. Type I, found in Tadzhikistan, is characterized by large amts. of contact silicates and originated in high-temp. zones. Type II, found in Khapcheranga, Transbaikal, Verkhoyansk and Yakutia, is of hydrothermal and sometimes of mesothermal origin. Type III is not found in the U. S. S. R. Type IV is found in the Far East, Transbaikal, Kirgizia and Tokichan. Type V is found in the Tyutyusu deposits of the Northern Caucasus. Three tables list the various minerals occurring in these five types in a no. of Soviet and non-Soviet deposits. A. A. Amirasłanov. *Ibid.* 9, No. 3, 86–7 (1939).—A criticism of Trofimov's classification. F. H. Rathmann

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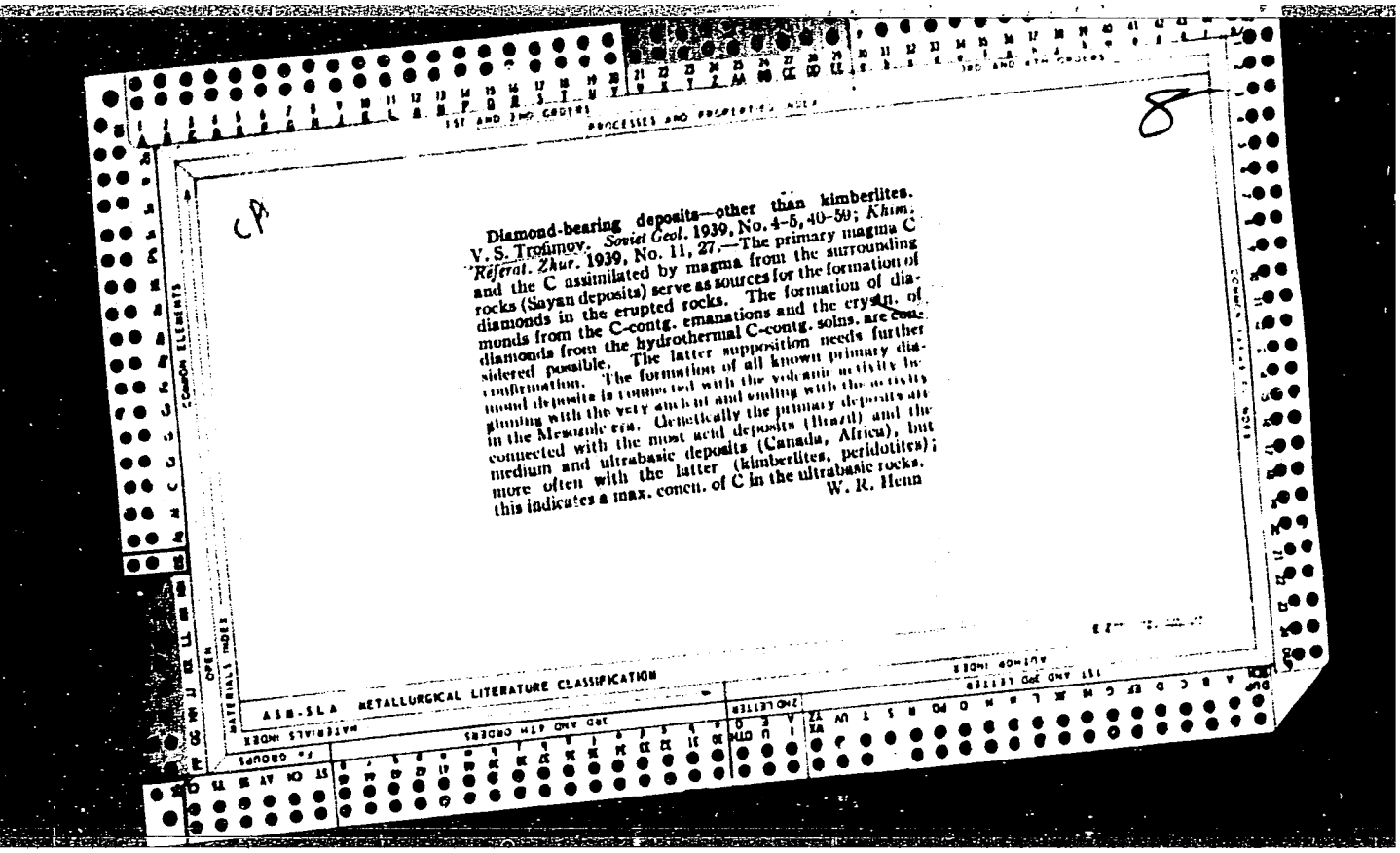

Diamond-bearing deposits—other than kimberlites. V. S. Trofimov. *Soviet Geol.* 1939, No. 4–5, 40–50; *Khim. Referat. Zhur.* 1939, No. 11, 27.—The primary magma C and the C assimilated by magma from the surrounding rocks (Sayan deposits) serve as sources for the formation of diamonds in the erupted rocks. The formation of diamonds from the C-contg. emanations and the crystn. of diamonds from the hydrothermal C-contg. solns. are considered possible. The latter supposition needs further confirmation. The formation of all known primary diamond deposits is connected with the volcanic activity beginning with the very ancient and ending with the acidic in the Mesozoic era. Genetically the primary deposits are connected with the most acid deposits (Brazil) and the medium and ultrabasic deposits (Canada, Africa), but more often with the latter (kimberlites, peridotites); this indicates a max. concn. of C in the ultrabasic rocks.

W. R. Henn

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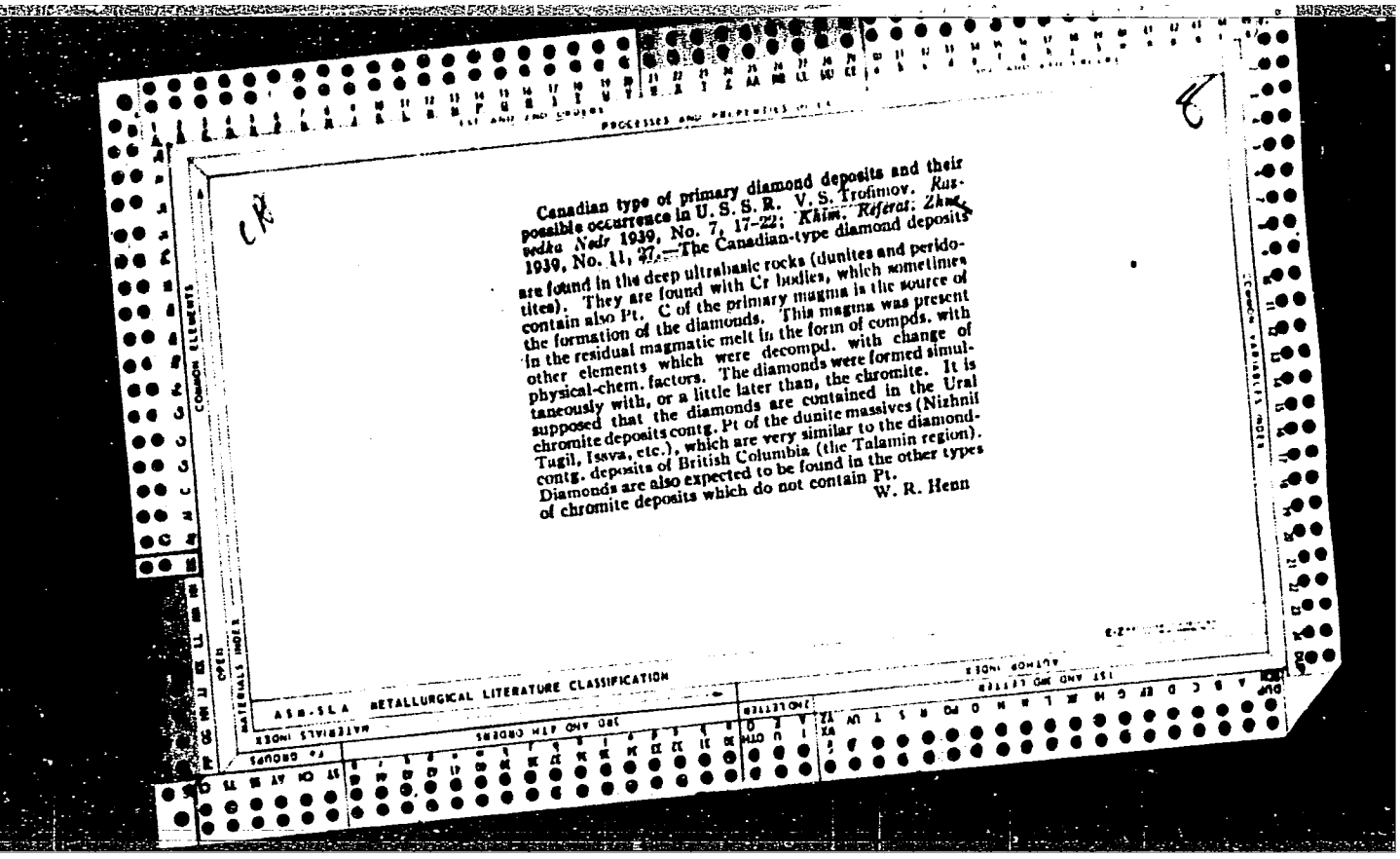

Canadian type of primary diamond deposits and their possible occurrence in U. S. S. R. V. S. Trofimov. *Razvedka Nedr* 1939, No. 7, 17–22; *Khim. Referat. Zhur.* 1939, No. 11, 47.—The Canadian-type diamond deposits are found in the deep ultrabasic rocks (dunites and peridotites). They are found with Cr bodies, which sometimes contain also Pt. C of the primary magma is the source of the formation of the diamonds. This magma was present in the residual magmatic melt in the form of compds. with other elements which were decompd. with change of physical-chem. factors. The diamonds were formed simultaneously with, or a little later than, the chromite. It is supposed that the diamonds are contained in the Ural chromite deposits contg. Pt of the dunite massives (Nizhnii Tagil, Issava, etc.), which are very similar to the diamond-contg. deposits of British Columbia (the Talamin region). Diamonds are also expected to be found in the other types of chromite deposits which do not contain Pt.

W. R. Henn

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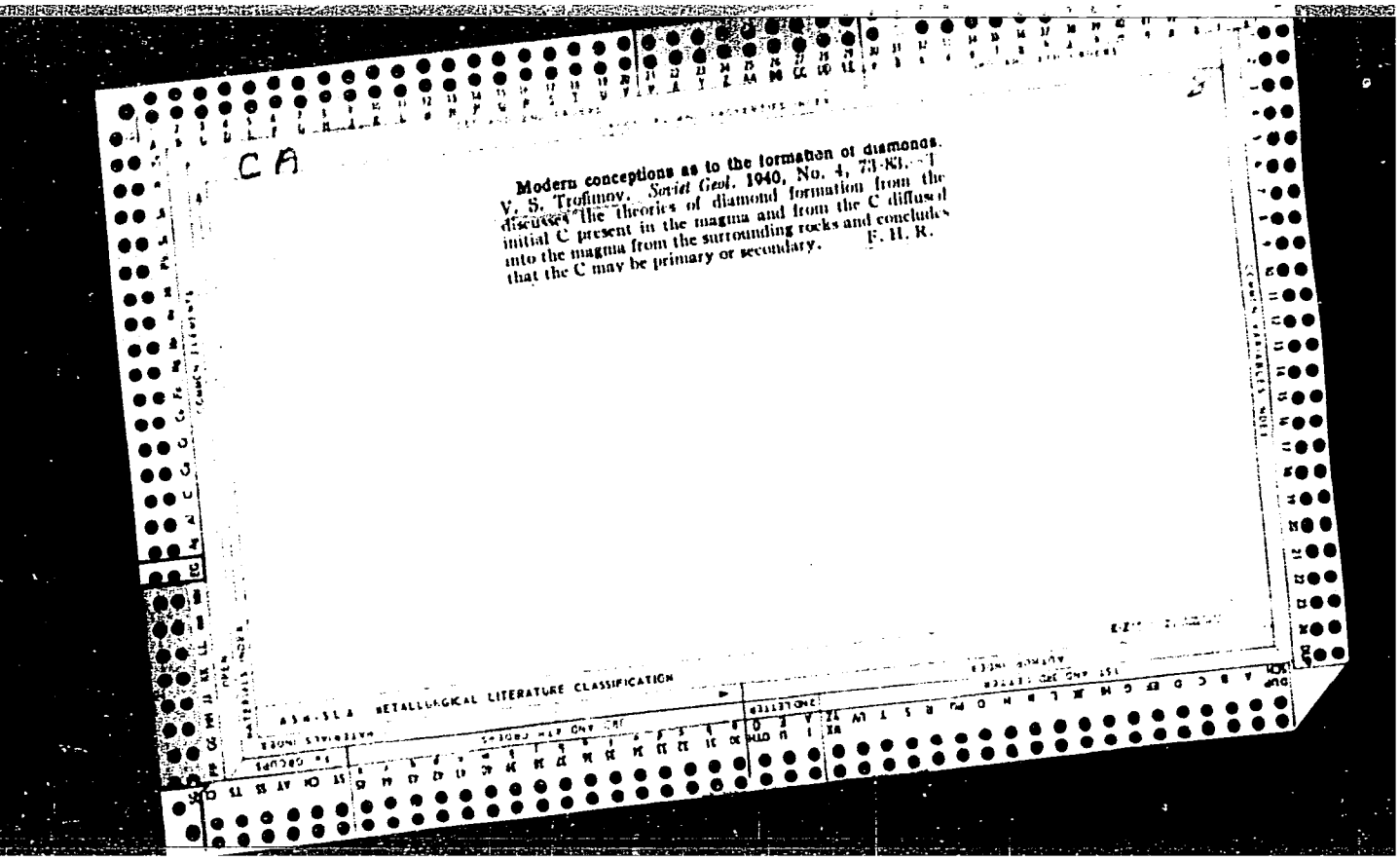

CA

Modern conceptions as to the formation of diamonds. V. S. Trofimov. *Soviet Geol.* 1940, No. 4, 73-83.—I discusses the theories of diamond formation from the initial C present in the magma and from the C diffused into the magma from the surrounding rocks and concludes that the C may be primary or secondary. F. H. R.

METALLURGICAL LITERATURE CLASSIFICATION

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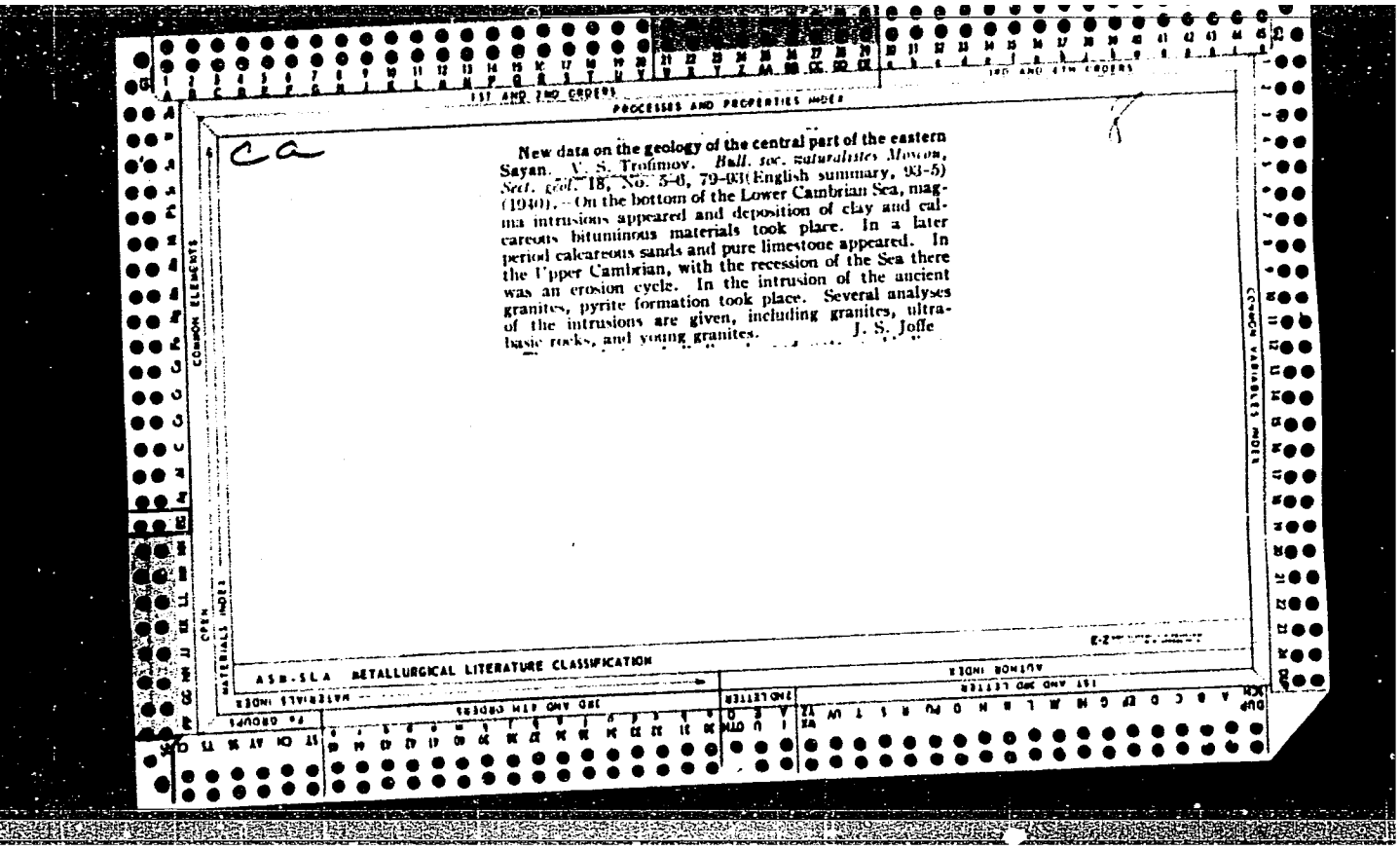

Ca

New data on the geology of the central part of the eastern Sayan. V. S. Trofimov. *Bull. soc. naturalistes Moscou, Sect. geol.* 18, No. 5-6, 79-93 (English summary, 93-5) (1940).—On the bottom of the Lower Cambrian Sea, magma intrusions appeared and deposition of clay and calcareous bituminous materials took place. In a later period calcareous sands and pure limestone appeared. In the Upper Cambrian, with the recession of the Sea there was an erosion cycle. In the intrusion of the ancient granites, pyrite formation took place. Several analyses of the intrusions are given, including granites, ultrabasic rocks, and young granites. J. S. Joffe

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TROFIMOV, V.S., doktor geologo-mineralogicheskikh nauk.

A diamond-bearing province in Siberia. Priroda 46 no.7:10-18 Jl '57. (MLRA 10:8)

1.Geologicheskiy institut Akademii nauk SSSR, Moskva.
(Yakutia--Diamonds)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, Vladimir Sergeyevich, doktor geologo-mineralogicheskikh nauk; NAUMOV, Gurly Vasil'yevich, kandidat geograficheskikh nauk; USPENSKAYA, N.V., redaktor; GUBIN, M.I., tekhnicheskiy redaktor

[Diamonds of Yakutia] Iakutskie almazy. Moskva, Izd-vo "Znanie," 1957. 31 p. (Vsesoyuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.8, no.22) (MLRA 10:9)
(Yakutia--Diamond mines and mining)

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TROFIMOV, V.S.

Basic regularities of the formation and distribution of placer deposits in various climatic areas. Zakonom. razm. polezn. iskop. 2:147-165 '59. (MIRA 15:4)

1. Geologicheskiy institut AN SSSR.
(Ore deposits)

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SHATSKIY, N.S., akademik, otv. red.; SHANTSER, Ye.V., red.; ROZHKOV, I.S., red.; TROFIMOV, V.S., red.; MOMDZHI, G.S., red.; KAMSHILINA, Ye.M., red.; SHKLYAR, S.Ya., tekhn. red.; LOMILINA, L.N., tekhn. red.

[Mineral distribution characteristics] Zakonomernosti razmeshcheniia poleznykh iskopaemykh. Moskva, Gos.nauchno-tekhn.izdvo lit-ry po gornomu delu. Vol.4.[Placer deposits] Rossypi. 1960. 254 p. (MIRA 15:1)

1. Akademiya nauk SSSR. Otdeleniye geologo-geograficheskikh poleznykh iskopayemykh.

(Ore deposits)

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TROFIMOV, V.S.

Oligocene placers in the western part of the Turgay trough and their distribution. Zakon.razm.polezn.iskop. 3:285-303 '60. (MIRA 14:11)

1. Geologicheskiy institut AN SSSR.
(Turgay region--Geology, Stratigraphic)

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TROFIMOV, V.S.

Paleozoic kimberlites of the Siberian Platform. Dokl AN SSSR 135 no.4:940-943 '60. (MIRA 13:11)

1. Geologicheskiy institut Akademii nauk SSSR. Predstavleno akademikom D.I.Shcherbakovym.
(Yakutia--Kimberlite)

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TROFIMOV, V.S.

Source of diamonds in placers of the Markha River. Trudy IAFAN SSSR. Ser.geol. no.6:136-141 '61. (MIRA 14:9)
(Markha Valley--Diamonds)

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TROFIMOV, V.S.

Distribution of diamond deposits in the Siberian Platform. Trudy IAFAN SSSR. Ser.geol. no.6:142-153 '61. (MIRA 14:9)
(Siberian Platform--Diamonds)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.S.; BULAVA, Yu.V.

Quaternary diamond placers of the Siberian Platform. Trudy Kom.-chetv.per. no.26:7-19 '61. (MIRA 15:3)
(Siberian Platform--Diamonds)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.S.

Conditions of the formation and characteristics of the distribution of diamonds in kimberlites. Geol. rud. mestorozh. 5 no.2:62-75 Mr-Ap '63. (MIRA 16:6)

1. Geologicheskiy institut AN SSSR, Moskva.
(Diamonds) (Kimberlite)

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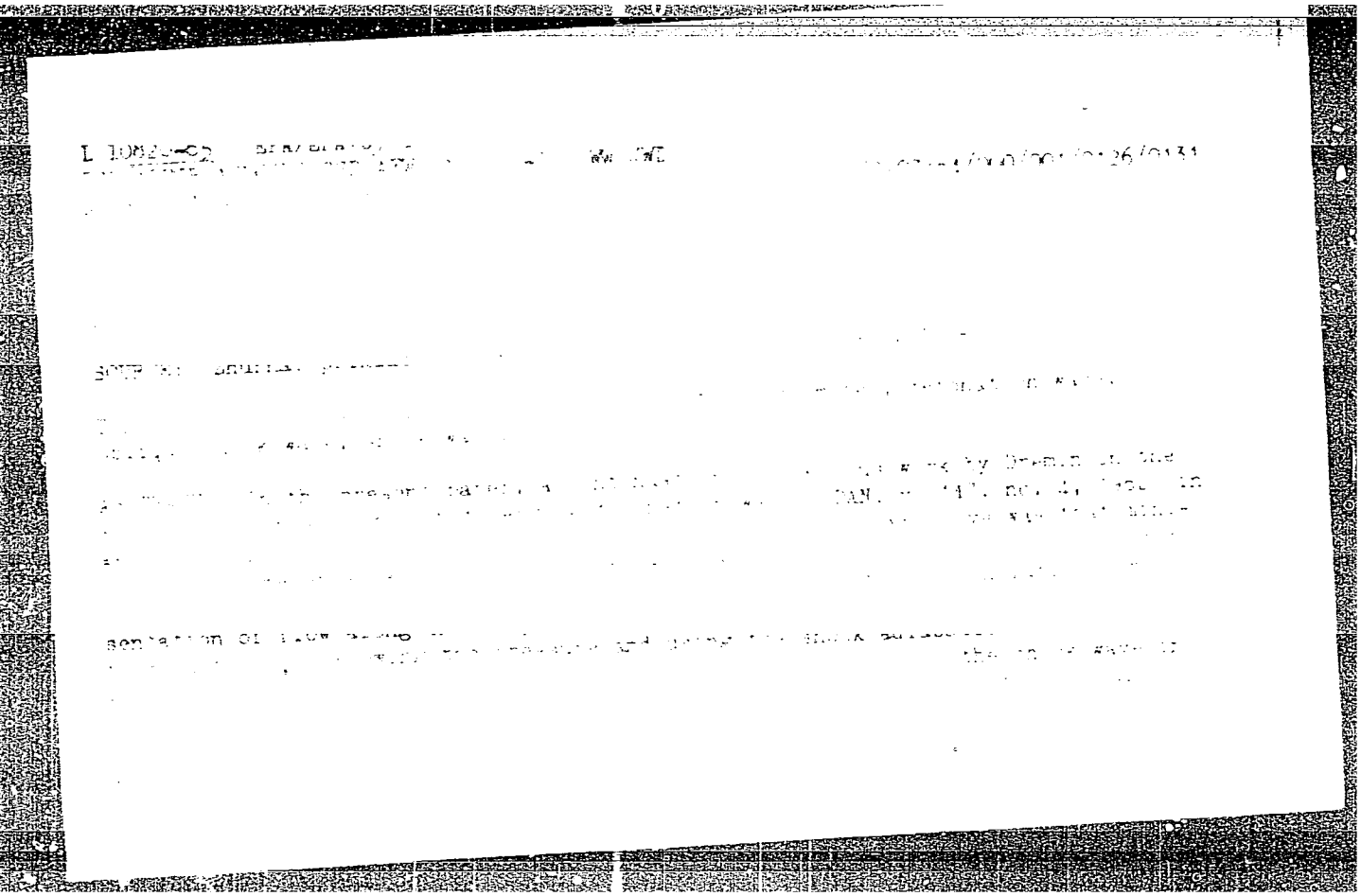

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experimentation if the chemical composition and equation of state of the fluid

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DREMIN, A.N. (Moskva); TROFIMOV, V.S. (Moskva)

Calculating the critical diameters of the detonation of liquid explosives. PMTF no.1:126-131 Ja-F '64. (MIRA 17:4)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

KAMSHILINA, Ye.M.; TROFIMOV, V.S.

Second conference on the geology of the mineral placer deposits.
Izv. AN SSSR. Ser. geol. 29 no.8:107-112 Ag '64. (MIRA 17:11)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

ACC NR: AP7000638 SOURCE CODE: UR/0414/66/000/003/0019/0030

AUTHOR: Trofimov, V. S. (Moscow); Dremin, A. N. (Moscow)

ORG: none

TITLE: On the fundamentals of a selection law for detonation velocity

SOURCE: Fizika goreniya i vzryva, no. 3, 1966, 19-30

TOPIC TAGS: detonation velocity, detonation kinetics, detonation wave, detonation rate

ABSTRACT: A new method for treating the explosion dynamics characterized by turbulence in the detonation front is presented. The turbulence is described by means of auxiliary averaging functions. When the averaging functions are purely thermodynamic, an additional distribution function is utilized. The laws of conservation are written in terms of these functions and it is shown that the dynamics are analogous to that of a plane detonation wave. The general problem yields physically interesting results when it is assumed that turbulence changes sufficiently rapidly into an isotropic process and fluctuations of the thermodynamic quantities damp out faster than velocity fluctuations. These assumptions lead to the computation of reaction rates which show that, in a regime approaching equilibrium, chemical reactions decay slower or faster according to certain heat flow criteria. This approach also explains theoretically

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ACC NR: AP7000638

acoustic radiation in a direction toward the explosion products that was observed by P. I. Soloykhin (*Nauchno-tekhnicheskiye problemy goreniya i rezryva*, 1965, 2, 35). Orig. art. has: 38 formulas.

SUB CODE: 19,07/ SUBM DATE: 02Mar66/ ORIG REF: 012/ OTH REF: 004

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

BULAVA, Yu.V.; TROFIMOV, V.S.

Some characteristics of the distribution of heavy minerals in recent beach sediments on the northern coast of the Black Sea. Biul. Kom. chetv. per. no.30:58-71 '65. (MIRA 19:2)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.S.

Hydrogoethite placers in the northern part of the Turgay trough. Geol. rud. mestorozh. 6 no.6:98-109 N-D '64.
(MIRA 18:4)

1. Geologicheskiy institut AN SSSR, Moskva.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

BULAVA, Yu.V.; TROFIMOV, V.S.

Some characteristics of the amber accumulation in the Oligocene sediments of the Zemlandskii Peninsula in Kaliningrad Province (Baltic amber province). Izv.vys.ucheb.zav.; geol. i razv. 6 no.11:93-104 N '63. (MIRA 18:2)

1. Geologicheskiy institut AN SSSR.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.S.

Basic factors controlling the formation and distribution of mineral placers. Lit. i pol. iskop. no.6:5-18 N-D '64.
(MIRA 18:3)

1. Geologicheskiy institut AN SSSR, Moskva.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

SMIRNOV, V.I., akademik, otv. red.; ROZHKOV, I.S., red.; TROFIMOV, V.S., red.; SHILO, N.A., red.; KAMSHILINA, Ye.M., red.

[Geology of placers] Geologiia rossypei. Moskva, Nauka, 1965. 399 p. (MIRA 18:6)

1. Akademiya nauk SSSR. Nauchnyy sovet po rudoobrazovaniyu.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.S., doktor geo.-mineral.nauk

Placer deposits of minerals and urgent problems in their investigation. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform 17 no.7:78-80 Jl '64. (MIRA 17:10)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.S.

Second Conference on the Geology of Mineral Placer Deposits in the U.S.S.R. Lit. i pol. iskop. no.5:122-125 S-O '64. (MIRA 17:11)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.S.

Classification of littoral placers. Geol. rud. mestorozh. 6 no.4: 105-108 Jl-Ag '64. (MIRA 17:10)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

DREMIN, A. N.; TROFIMOV, V. S.

"On the nature of the critical diameter."

report presented at the 10th Intl Combustion Symp, Cambridge, UK, 17-21 Aug 64.

Inst of Chemical Physics, AS USSR, Moscow.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.S.

51-4-1-22/26

AUTHOR: Trofimov, V. S.

TITLE: Dependence of the Brightness of Electroluminescence on Voltage. (Zavisimost' yarkosti elektrolyuminestsentsii ot napryazheniya.)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol.IV, Nr.1, pp. 113-115. (USSR)

ABSTRACT: Dependence of the luminescent brightness on voltage was measured using apparatus consisting of a photomultiplier ФЭУ-19, a d.c. amplifier and a microammeter. The capacitor was placed directly in front of the photomultiplier photocathode. The results obtained for ZnS-Cu (10^{-4} gram-atoms of Cu per mole of ZnS) are given in Figs. 1 and 2. Fig.1 ordinate represents the logarithm of brightness B, and the abscissa represents the quantity $10/\sqrt{U}$, where U is the r.m.s. voltage of 50 c/s applied to the capacitor. Fig.1 shows that on

Card 1/4 increase of U, beginning with 33 V the extremal points

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Dependence of the Brightness of Electroluminescence on Voltage.

depart from the law given by Eq.1

$$B = A \exp(-b/\sqrt{U})$$

where A and b are constants. This law was obtained by Zahlm, Diemer and Klasens (Ref.3) on the basis of the impact ionization mechanism and assuming the existence of layers impoverished in charge carriers. The field is concentrated in such layers. Fig.2 shows dependence of logB on 100/U. Beginning with 64 V the extremal points satisfy the law given by Eq.2

$$B = A' \exp(-b'/U)$$

where A' and b' are constants. The results show that beginning with r.m.s. voltage of 50 V the impoverished layer extends throughout the whole of the crystal, and

 therefore the true field intensity is equal to the mean

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

Dependence of the Brightness of Electroluminescence on Voltage.

applied field intensity, which is of the order of 10^5 V/cm. Electroluminescence was observed even at peak values of 10 V. At the latter voltage the true field is calculated to be 5×10^4 V/cm. The author concludes that electroluminescence does not require fields of the order of breakdown strength ($>5 \times 10^5$ V/cm). Acceleration of electrons to energies necessary for impact ionization of the lattice begins well before breakdown; breakdown occurs when this ionization is not balanced out by re-combination and when the number of electrons in the conduction band grows in avalanche fashion. The author thanks M.N. Alentsev for directing the work. There are 2 figures and 6 references, 3 of which are English, 1 French, 1 Dutch and 1 Russian.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

51-4-1-22/26

Dependence of the Brightness of Electroluminescence on Voltage.

ASSOCIATION: Physics Institute, Academy of Sciences of the USSR. (Fizicheskiy institut, AN SSSR.)

SUBMITTED: April 22, 1957.

AVAILABLE: Library of Congress.

1. Voltage-Luminescent brightness-Theory 2. Photomultipliers-Applications

Card 4/4

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

S/108/63/018/002/007/010
D413/D308

AUTHORS: Ivanov, I. F. and Trofimov, V. S., Members of the Society (see Association)

TITLE: A universal method of measuring the nonlinearity of pulse-circuit equipment

PERIODICAL: Radiotekhnika, v. 18, no. 2, 1963, 52-60

TEXT: The authors survey the various methods used for measuring nonlinearity in pulse circuits for television, radar and other purposes, and consider the general requirements for such a method. They examine three main nonlinearity criteria: η as used in television, expressing the maximum deviation of the differential amplification factor from its intial value; ζ as used in radar, expressing the maximum relative deviation of the amplitude characteristic from the tangent to it at the origin, and ξ, expressing the maximum relative deviation of the characteristic from the line joining its ends. They introduce a classification of amplitude characteristics, work out the values of the various criteria for

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A universal method ...

seven typical standard characteristics, and draw conclusions about the advantages and disadvantages of the criteria. They consider a universal method of measuring nonlinearity previously presented by the first author (I. F. Ivanov, Radiotekhnika, v. 15, no. 3, 1960), which uses a sawtooth-modulated pulse-train as input, automatically compares output and input voltages, and presents the nonlinearity function directly on a CRT display. It is shown that this method is most suited to the purpose and has extensive further applications in pulse-circuit design work. There are 5 figures and 2 tables.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A. S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communications imeni A. S. Popov) [Abstracter's note: Name of Association taken from first page of journal]

SUBMITTED: June 3, 1961 (initially)
November 14, 1961 (after revision)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TRGFIMOV, V.S.

Wattmeter measuring instantaneous losses in electroluminophors.
Prib. i tekh. eksp. no.6:65-68 N-D '60. (MIRA 13:12)

1. Fizicheskiy institut AN SSSR.
(Luminescent substances) (Wattmeter)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.T.

Regionalization of the southwestern part of the West Siberian Plain for purposes of engineering geology. Vest. Mosk. un. Ser. 4: Geol. 18 no.4:36-44 Jl-Ag '63. (MIRA 16:10)

1. Kafedra gruntovedeniya i inzhenernoy geologii Moskovskogo universiteta.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

SERGEYEV, Ye.M.; IL'INSKAYA, G.G.; REKSHINSKAYA, L.G.; TROFIMOV, V.T.

Study of the distribution of clay minerals for purposes of engineering geology. Vest. Mosk. un. Ser. 4; Geol. 18 no.3: 3-9 My-Je '63. (MIRA 16:10)

1. Kafedra gruntovedeniya i inzhenernoy geologii Moskovskogo universiteta.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

POLYAKOV, S.S.; TROFIMOV, V.T., aspirant

Composition and properties of Middle Quaternary moraine formations in the western part of the West Siberian Plain. Izv. vys. ucheb. zav.; geol. i razv. 7 no.6:107-112 Je '64. (MIRA 18:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.T.; POLYAKOV, S.S.

Characteristics of the Middle Quaternary fluvioglacial sediments in the western part of the West Siberian Plain. Vest. Mosk. un. Ser. 4: Geol. 19 no.3:89-97 My-Je '64. (MIRA 17:12)

1. Kafedra gruntovedeniya i inzhenernoy geologii Moskovskogo universiteta.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.T.

Characteristics of the composition and properties of alluvial and alluvial-lake sediments in the Northern Sos'va Valley. Vest. Mosk. un. Ser. 4: Geol. 19 no.4:37-44 Jl-Ag '64. (MIRA 17:11)

1. Kafedra gruntovedeniya i inzhenernoy geologii Moskovskogo universiteta.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.T.; BEZGIN, N.P.

Some data on the weathering of basic effusive rocks. Vest.Mosk.un. Ser. 4: Geol. 16 no.3:51-56 My-Je '61. (MIRA 14:6)

1. Kafedra gruntovedeniya i inzhenernoy geologii Moskovskogo universiteta.

(Rocks, Igneous) (Weathering)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.V.

TROFIMOV, V.V.; KOZAKOV, B.N. (Moskva)

Specialized medical personnel in the Russian Federation during 40 years. Zdrav.Ros.Feder. 1 no.10:38-46 O '57. (MIRA 10:12)
(MEDICINE--SPECIALTIES AND SPECIALISTS)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.V.

Training of medical personnel in the R.S.F.S.R. from 1959 to 1965. Klin.med. 37 no.1:12-18 Ja '59. (MIRA 12:3)

1. Zamestitel' ministra zdravookhraneniya RSFSR.
(EDUCATION, MEDICAL
in Russia (Rus))

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.V. (Moskva)

Improve the distribution of physicians. Sov. zdrav. 19 no.7:20-23 '60. (MIRA 13:8)

1. Zamestitel' ministra zdravookhraneniya RSFSR.
(PHYSICIANS)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001756710003-1

TROFIMOV, V.V.

Some problems in raising the qualifications of medical personnel in the R.S.F.S.R. Zdrav.Ros.Feder. 6 no.7:3-7 Jl '62. (MIRA 15:9)

1. Zamestitel' ministra zdravookhraneniya RSFSR.
(PUBLIC HEALTH ADMINISTRATION) (PHYSICIANS)

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